

REMARKS

Claims 1, 6-10, 18-25, 27, 28, 30-37 and 39-43 are pending in this application, with claims 1, 28 and 35 being independent. Independent claims 1, 28 and 35 have been amended. No new matter has been added by way of this amendment. Favorable reconsideration and further examination is respectfully requested in view of the foregoing amendments and the following comments of the Applicants, which are preceded by related comments of the Examiner in small bold type:

Claim Rejections - 35 USC § 103

2. Claims 1, 6-8, 18-21, 27, 28, 30-32, 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al. in view of Goedeke et al.

Morgan et al. teaches all the limitations of the claims except for a detector for detection of the presence of an obstruction to viewing the emergency equipment station. However, Goedeke et al. discloses a fire detection system with a video camera 60 for viewing the area 11, thus capable of detecting any obstructions to the viewing area 11, the camera 60 sending signals via output coupling 62/65 to a controller 70. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Morgan et al. with a detector for detection of the presence of an obstruction to viewing as suggested by Goedeke et al. Doing so would provide an effective emergency equipment station.

With respect to claim 8, to have the detection range of 6 inches to 10 feet is obvious with one skilled in the art and furthermore, one of ordinary skill in the art would have expected Applicant's invention to perform equally well with either claimed dimensions or the Hinchler's device. Therefore, it would have been an obvious matter of design choice to modify the device of Morgan et al. in view in view of Goedeke et al. to obtain the invention as specified in claim 8.

Amended independent claim 1 is directed to an apparatus for remote inspection of emergency equipment. The equipment is installed in one or a system of emergency equipment stations. The apparatus includes a detector that is located at an emergency equipment station for detecting the presence of an obstruction to viewing or access to the emergency equipment station. The detector includes a sonar module. The apparatus also includes a defibrillator station with a portable defibrillator that is located at the emergency equipment station. The apparatus further includes an electronic circuit that is in communication with the detector and a remote

central station. The electronic circuit can issue a signal to the remote central station upon detection of the obstruction to the emergency equipment station.

Referring to FIG. 8 and to the detailed description of the subject application, a defibrillator station is described that includes a sonar module 90 with apertures 92. Citing from page 11, line 25 to page 12, line 22, the application reads:

"Referring to FIG. 8, in another embodiment, components of docking station 30, as described above, are included within a defibrillator station 150 that includes one or more mechanical fasteners 151 (e.g., a clips, fastening material, etc.) along with a recess for holding a defibrillator 152. Typically, the defibrillator station 150 is mounted to a wall, post, or other support surface, W, so that the defibrillator 152 is accessible by trained personnel or the general public for use during an emergency such as a person suffering from sudden cardiac arrest or other life-threatening ailment. By distributing a system of defibrillator stations, for example, throughout an airport, shopping center, or other facility accessible by the public, in the event of an emergency a defibrillator can be removed from a relatively nearby defibrillator station to provide assistance.

The defibrillator station 150 contains the electronic and communications circuitry 94 along with sonar module 90 and the apertures or windows 92 for emitting and receiving ultrasonic signals to detect obstructions as previously mentioned. By including the sonar module 90 within the defibrillator station 150, obstructions to the visibility and the accessibility of the defibrillator station are detectable and upon such detection a signal is issued by the electronic and communications circuitry 94 for transmitting to the remote central station 26 to provide an alert regarding the obstruction. In this embodiment the signal is transmitted from the electronic and communication circuitry 94 to a connection terminal 154 and then to a hardwire connection 118 that is in communication with the remote central station 26. Alternatively, the signal indicating the obstruction can be transmitted in a wireless signal to the remote central station 26 from an antenna 120 included on the defibrillator station. Additionally in some embodiments, similar to the fire extinguisher station 16 (shown in FIG. 2), a signal that indicates one or more internal conditions of the defibrillator 152 and/or the defibrillator station 150 are transmitted to the remote central station 26. For example, if the defibrillator 152 is removed from the defibrillator station 150 (e.g., in the event of an emergency), or if an internal battery needs attention (e.g., replacing, recharging, etc.), or if another similar or previously mentioned predetermined internal condition occurs, a signal is transmitted in a signal to the remote central station 26 over the hardwire connection 118 and/or in a wireless signal from the antenna 120."

Thus a defibrillator station is described that contains a sonar module and apertures for emitting and receiving ultrasonic signals to detect obstructions to the visibility and accessibility of the station. Via electronic and communications circuitry, the defibrillator station is capable issuing a signal to a remote central station to provide an alert in regards to a detected obstruction.

The applied art is not understood to disclose or to suggest features of amended independent claim 1. For example, the art is not understood to disclose or to suggest "a detector

located at an emergency equipment station for detection of the presence of an obstruction to viewing of or access to the emergency equipment station, wherein the detector includes a sonar module", as required by claim 1.

In the subject action, the Examiner concedes that Morgan does not disclose or suggest "a detector for detection of the presence of an obstruction to viewing the emergency equipment station". Apparently, in an attempt to cure the deficiency of Morgan, the Examiner describes Geodeke as disclosing "a fire detection system with a video camera 60 for viewing the area 11", and being capable of detecting obstructions to the viewing area. However, the video cameras described by Geodeke passively collect video from the area 11 rather than actively transmitting signals to detect obstructions. Geodeke also describes collecting ultraviolet and infrared energy with detectors, however, similar to the video collection, the ultraviolet and infrared energy is collected in a passive manner. In this regard, Geodeke reads:

"In accordance with the invention, a color video camera 60 includes a lens 61 positioned to provide a wide area field of a substantial portion of service hangar area 11. The output of camera 60 which comprises the color video information of the image presented by service hangar area 11 is coupled by an output coupling 62 to a processor and controller unit 70. An ultraviolet energy detector 63 is positioned to "view" a substantial portion of hangar area 11 and produces an output signal indicative the ultraviolet energy received which is coupled by an output coupling 65 to processor and controller unit 70. Similarly, an infrared detector 64 is responsive to infrared wavelength energy and is positioned to "view" a substantial area of hangar area 11. The output signal of infrared detector 64 is indicative of the intensity of infrared wavelength energy received by detector 64 which is coupled to processor and controller 70 by an output coupling 66. Processor and controller 70 includes an output line 72 which is coupled to the trigger inputs of fire suppressors 50 through 53. Processor and controller 70 further includes an output 71 which is coupled to the trigger input of alarm unit 54.

A second color video camera 30 includes a lens 31 and an output coupling 32. In its preferred arrangement, camera 30 is positioned to provide a view of service hangar area 11 from a different perspective than that provided by camera 60. An ultraviolet detector 33, similar to ultraviolet detector 63, is positioned to "view" a portion of service hangar area 11 and includes an output 35 coupled to a processor controller 40. By way of further similarity, an infrared detector 34 similar to infrared detector 64 is positioned to "view" a selected area of service hangar area 11 and includes an output 36 coupled to processor and controller 40. Processor and controller 40 receives the output signals of detectors 33 and 34 as well as the color video signal output of camera 30. Processor controller 40 includes an output terminal 41 coupled to the trigger input of alarm unit 54 and an output terminal 42 coupled to the trigger inputs of fire suppressors 50 through 53.

A comparison of camera unit 30, detectors 33 and 34 and processor and controller 40 to camera 60, detectors 63 and 64 and processor controller 70 shows that each camera system and processor controller and detector combination are essentially redundant and are

individually coupled to the trigger inputs of fire suppressors 50 through 53 and alarm unit 54. Thus, it will be apparent to those skilled in the art that while either camera unit may operate as a single unit within hangar area 11, it is advantageous to utilize redundant camera units to more completely view various areas of hangar area 11. For example, suspect area 16 within hangar area 11 may be partially or completely blocked from the view of camera 30 but is completely viewable by camera 60. In addition, and as is described below in greater detail, process and controllers 40 and 70 may be configured to utilize the simultaneous image signals of cameras 30 and 60 to recognize certain nonfire events which would be more difficult to distinguish by a single camera.

In operation, camera 30 provides a colored video image of the viewed portion of service hangar 11. The video information provided by camera 30 is periodically stored by processor controller 40 using a conventional frame grabber. In addition, ultraviolet detector 30 and infrared detector 34 simultaneously view the same general area of service hangar 11. Upon the occurrence of an event within the viewed area of service hangar 11 such as suspect area 16 which produces either or both energies in the ultraviolet or infrared region, detectors 33 and 34 produce an input signal to processor and controller 40 which signifies a potential fire presence. Thereafter, by means set forth below in greater detail, processor controller 40 enters the event mode in which the image received by camera 30 is analyzed by processor controller 40. It should be noted that in accordance with an important aspect of the present invention despite the entrance of the system into the event mode, fire suppressant dispersers 50 through 53 remain inactive as the event mode evaluation proceeds, and no fire alarms are activated until the presence of fire is confirmed by the processor controller 40 which analyzes camera 30 image outputs." (Col. 4, line 26 to Col. 5, line 39)

Thus, Geodeke's video cameras 60, 30 and detectors 33, 34, 63, 64 are implemented to passively receive video content and ultraviolet and infrared energy. Furthermore, as mentioned above, the Examiner concedes that Morgan does not teach a detector for detecting an obstruction that limits viewing and accessibility.

Accordingly, the combination of Morgan and Geodeke fails at least to disclose or to suggest a detector located at an emergency equipment station for detection of the presence of an obstruction to viewing of or access to the emergency equipment station, wherein the detector includes a sonar module.

For at least these reasons, amended independent claim 1 is believed to be patentable. Amended independent claims 28 and 35 include limitations that are similar to those described above with respect to claim 1. As such, independent claims 28 and 35 are also believed to be allowable for at least the same reasons noted above.

Each of the dependent claims is also believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim and, as such, has not been addressed specifically herein.

3. Claim 35 rejected under 35 U.S.C. 103(a) as being unpatentable over Cronin et al. in view of Goedeke et al.

Cronin et al. teaches all the limitations of the claims except for a detector for detection of the presence of an obstruction to viewing the emergency equipment station. However, Goedeke et al. discloses a fire detection system with a video camera 60 for viewing the area 11, thus capable of detecting any obstructions to the viewing area 11, the camera 60 sending signals via output coupling 62/65 to a controller 70. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Morgan et al. with a detector for detection of the presence of an obstruction to viewing as suggested by Cronin et al. Doing so would provide an effective emergency equipment station.

Independent claim 35 has been amended in a similar manner as independent claim 1 (i.e., a detector that includes a sonar module).

Cronin is understood to describe a defibrillator storage device that is capable of protecting a defibrillator and also includes an integral alarm system for issuing an alert during a cardiac arrest incident (see col. 2, lines 5-67).

Accordingly, Cronin fails at least to disclose or to suggest a detector for detection of the present of an obstruction to viewing of or access to the portable defibrillator, wherein the detector includes a sonar module.

For at least this reason, amended independent claim 35 is believed to be patentable.

4. Claims 9, 10, 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al. in view of Goedeke et al. as applied to claims 1, 6-8, 18-21, 27, 28, 30-32, 40-43 above, and further in view of Rockwell et al.

Morgan et al. in view of Goedeke et al. teaches all the limitations of the claims except for the communication between two emergency equipment stations. However, Rockwell discloses an emergency equipment station with wireless communications that is capable with point-to-point communication with another emergency equipment station (see column 11, lines 25+). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Morgan et al. and Goedeke et al. with the communication between two emergency equipment stations as suggested by Rockwell. Doing so would provide a convenience and effective emergency equipment station (see column 5, lines 2-57).

Rockwell does not remedy the forgoing deficiencies of Goedeke. For example, Rockwell is not understood to describe or suggest a detector located at an emergency equipment station for

detection of the presence of an obstruction to viewing of or access to the emergency equipment station, in which the detector includes a sonar module. Rather, Rockwell appears to incorporate wireless communication into a network of defibrillators. For example, infrared technology is used to establish communication links (see FIG. 5 and col. 5, lines 1-59).

For at least this reasons stated above, amended independent claim 1, and correspondingly, dependent claims 9, 10, 22-25 are believed to be patentable.

5. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al. in view of Goedeke et al. as applied to claims 1, 6-8, 18-21, 27, 28, 30-32, 40-43 above, and further in view of Cronin et al.

Morgan et al. in view of Goedeke et al. teaches all the limitations of the claims except for a detector for a low battery condition. However, Cronin et al. discloses an emergency equipment station 10 having a portable defibrillator, one or more batteries with a low battery detector 18/19 (see column 4, lines 29-37). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Morgan et al. and Goedeke et al. with the communication between two emergency equipment stations as suggested by Cronin et al. Doing so would provide a convenience and effective emergency equipment station.

As mentioned above, Morgan and Goedeke, individually or in combination, are not understood to disclose or suggest a detector located at an emergency equipment station for detection of the presence of an obstruction to viewing or accessing the emergency equipment station, in which the detector includes a sonar module, as required by amended claim 28. As dependent claims 33 and 34 respectfully depend upon amended independent claim 28, Applicants respectfully assert that claims 33 and 34 are also patentable over the combination of cited references.

6. Claims 36, 37, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cronin et al. in view of Goedeke et al. as applied to claim 35 above, and further in view of Morgan et al.

Cronin et al. in view of Goedeke et al. teaches all the limitations of the claims except for a wireless or a hardwire communication. However, Morgan et al. discloses an emergency equipment station with wireless or hardwire communication capabilities. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Cronin et al. and Goedeke et al. with a wireless or a hardwire communication as suggested by Morgan et al. Doing so would provide a versatile emergency equipment station (see column 1, lines 25- 40).

As mentioned above, Cronin and Morgan, individually or in combination, are not understood to remedy the forgoing deficiencies of Goedeke. As dependent claims 36, 37 and 39 respectfully depend upon amended independent claim 35, Applicants respectfully assert that claims 36, 37 and 39 are also patentable over the combination of cited references.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.


In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney can be reached at the address shown below. All telephone calls should be directed to the undersigned at 617-368-2191.

Applicants also believe that no fees are due, however, if fees are due, please apply all charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 04373-033001.

Respectfully submitted,

Date: 1 March 2007



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